

REMARKS

In response to the Final Office Action mailed October 20, 2004, Applicant has amended the claims and presents the following remarks traversing the rejections of the pending claims. Claims 1-8, 10, 13-22, 24, 27-31, 35, 40-47, 49-61, 63-86 and 88-150 were previously pending in this application. By this amendment, Applicant is canceling claims 3, 8, 17 and amending claims 4, 5, 10, 15, 18-22, 24, 27-30, 40, 46, 49-52, 58-61, 63-66, 90, 98, 122, 128, 130, and 133. No new claims have been added. As a result, claims 4-7, 10, 13-16, 18-22, 24, 27-31, 35, 40-47, 49-61, 63-86 and 88-150 are pending for examination, with claims 1, 2, 15, 30, 68, 90 and 98 being independent claims.

Claims 1 and 2 have been amended to incorporate the limitation previously recited in dependent claim 3 which depended from claims 1 and 2, and claim 15 has been amended to incorporate the limitation previously recited in dependent claim 17 which depended from claim 15. Claims 4, 5, 10, 18-22, 24, 27-29, 50-52, 58-61, 63-66, 122, and 128 have been amended to be consistent with the amendments to independent claims 1, 2 and 15.

Rejections Under 35 U.S.C. § 103**Simon**

Claims 1-8, 10, 13-17, 19-22, 24, 29-31, 35, 40-47, 49-61, 63-86, and 88-150 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,530,909 to Simon et al (hereinafter referred to as Simon). Applicant has amended independent claims 1, 2, 15, 30, 90 and 98 and also respectfully traverses this rejection.

Claims 3, 8 and 17 have been canceled and therefore the rejection is moot with respect to these claims. However, Applicant has amended claims 1 and 2 to incorporate the limitation previously recited in claim 3 and has amended claim 15 to incorporate the limitation previously recited in claim 17. Therefore, the rejections of claims 3 and 17 will be addressed in reference to claims 1, 2 and 15.

Each of Applicant's independent claims 1, 2, 15, 30, 68, 90 and 98 is directed to various features of a communication system that employs a "daisy-chain" type of signal communication between passenger vehicles making up the system. In other words, one vehicle receives and may access or use information contained in the signal, and passes the signal along to another vehicle in the chain, which may in turn pass the signal along to another vehicle, and so on. In this manner, information may be passed to one or many vehicles that may not be within direct

communication range of a source of the information, whether that source is a transmitting station or another vehicle. Unlike Simon, which discloses a simple relaying system to get information from a source to a destination and in which the nature of relay stations is immaterial, Applicant's have invented a dynamic, flexible communication system that can be used to interconnect several vehicles to allow the vehicles to share information among one another.

Applicant respectfully disagrees with the Examiner's characterization of Simon used throughout the Office Action. While the Examiner correctly points out that Simon discloses a communication system that relays an information signal from one "aerodyne" to another to pass the information signal from a source to a destination that is beyond the direct communication range of the source, the Examiner completely mischaracterizes the purpose and nature of Simon's system. As discussed several times in Applicant's previous responses, Simon is directed to a pure relaying system that uses aerodynes as relay points for a signal to enable the signal to cover a greater transmission range. Simon has no intention of forming a "communication system" with the aerodynes in which one aerodyne may communicate with another or in which the aerodynes have any use (or even knowledge) of the relayed signal. According to Simon, aerodynes that are engaged in some primary purpose (e.g, aircraft flying from one point to another) may be used as relays, i.e, may be used for a secondary purpose, without interrupting the primary purpose of the aerodynes. By equipping the aerodynes with transceivers, Simon explains that they can be used to relay the signal thereby providing a communication path between the source and the destination without creating a new communication infrastructure. Simon uses the aerodynes as simple relay points – Simon's invention is directed to forming a relay system with transceivers located on the aerodynes regardless of what the aerodynes are or may be doing. The only units that Simon teaches have any access to the information signal are the source that transmits it and the destination to which it is directed. There is absolutely no teaching or suggestion in Simon of allowing the aerodynes to access or use the signal in any manner whatsoever. There is not even any suggestion in Simon that the transceivers used to relay the signal are even connected in any way to any of the aerodynes' other systems (e.g., their communication circuitry).

Thus, for example, the Examiner's statement that Simon discloses that "the destination can be part of a passenger vehicle because the invention can enable information transmission between aircraft (column 2, lines 51-58)" is simply incorrect. Simon uses the term "destination"

in a specific context, namely to identify a unit to which the signal is being transmitted. As Simon uses the term, an aerodyne is not a “destination” for the signal, but simply a relay station. Simon never makes any mention whatsoever of allowing the aerodynes to do more with the signal than simply pass it along until it reaches the desired “destination.”

From Simon’s point of view, the aerodynes are simply convenient relay stations and Simon is completely void of any teaching related to forming an interactive communication system in which each vehicle may be an active part of the system, and accessing and using the information contained in signals transmitted between the vehicles making up the system.

Taking Simon in context, as is required to make a proper rejection under 35 U.S.C. § 103 (“a prior art reference must be considered in its entirety” MPEP § 2141.02), there is no teaching or motivation to be found anywhere in Simon that would lead one of ordinary skill in the art to modify Simon to provide a communication system having the features claimed in Applicant’s claims, as discussed further below.

With regard to claim 1, the Examiner acknowledges that Simon fails to disclose “altering one of a direction of travel and velocity of the second passenger vehicle in response to information received by the receiver,” as is recited in Applicant’s claim 1. However, the Examiner takes Official Notice that “it has been common practice in the art to alter one of a direction of travel and velocity of the second passenger vehicle in response to information received by the receiver.” In support of this statement, the Examiner points to U.S. Patent Number 6,405,132 to Breed et al (hereinafter referred to as Breed). The Examiner further states that “it would have been obvious to one of ordinary skill in the art to modify the invention of Simon so that it teaches altering one of a direction of travel and velocity of the second passenger vehicle in response to information received by the receiver.” Applicant respectfully disagrees.

The rejection is improper because there is no teaching or suggestion in the prior art that provides motivation to modify Simon’s system to include the feature of “altering one of a direction of travel and velocity of the second passenger vehicle in response to information received by the receiver.” Understanding Simon for what it is, namely a pure relay system in which the aerodynes have no access to, or even knowledge of, the signals being relayed, there is simply no motivation whatsoever to modify Simon to have features that depend on the vehicles having access to the contents of the transmitted signals. Thus, the Breed reference cannot cure the deficiencies in the Examiner’s rejection of Applicant’s claims because there is no reason to

apply the disclosure of Breed to Simon's system. Accordingly, withdrawal of the rejection of Applicant's independent claim 1 is respectfully requested. This reasoning also applies to dependent claims 53, 66, and 96.

With regard to claim 2, the Examiner acknowledges that Simon fails to disclose "storing data when the second passenger vehicle becomes disconnected from the information network so that the information can be provided when the second passenger vehicle is reconnected to the information network," as is recited in Applicant's claim 2. However, the Examiner asserts that "it would have been obvious...to modify the invention of Simon et al. so that it teaches...storing data when the second passenger vehicle becomes disconnected from the information network so that the information can be provided when the second passenger vehicle is reconnected to the information network" because "the Examiner takes Official Notice that such an arrangement has been well known in the art as a means for providing a system that is responsive to current conditions; fault tolerant; secure; and capable of serving several users simultaneously." In support of this notion, the Examiner refers to the abstract of Osaki et al. (US Patent No. 5,835,780) and the abstract of Imai (US Patent No. 6,560,650) for the principle of "storing data when the second passenger vehicle becomes disconnected from the information network so that the information can be provided when the second passenger vehicle is reconnected to the information network." Applicant respectfully asserts that it is not obvious to modify Simon to arrive at Applicant's claimed invention and that the proffered references (Osaki and Imai) cannot be combined with Simon.

Imai is directed to a computer system for controlling data transfer between a computer and an Internet connection. Imai has absolutely no bearing on or relation to Simon and is in a completely different field of art. Imai makes no mention whatsoever of a communication system between a plurality of vehicles, and neither does Imai discuss at all a relaying system such as is disclosed by Simon. Similarly, Osaki is directed to a method and apparatus for controlling power supplied to a computer during a power service interruption. Osaki discloses that upon detection of a power service interruption, the computer power supply communicates with the computer processor to provide notice of the power interruption and to instruct the processor to execute a "save" operation to prevent loss of data during the power interruption. Osaki has absolutely nothing to do with vehicular networks, relaying systems, nor even with any type of wireless communication network. Osaki is a method and apparatus internal to a computer

system. There is no teaching or suggestion whatsoever in either Imai or Osaki to apply their disclosures which are relevant to computers to a totally different relaying system such as Simon's.

As discussed above, Simon is concerned with a relaying system used to transfer a signal from a source to a destination using a plurality of aerodynes as relay stations. Also as discussed above, Simon's system does nothing but transfer the signals – the aerodynes do not form an “information network” and do not have any access to the transmitted signal. Therefore, aerodynes cannot become “disconnected” from the information network” because the aerodynes in Simon do not form an information network. Further, there is no need to store data when an aerodyne is “disconnected” (assuming one could be disconnected) because the aerodynes do not access the information signal and do not use the information contained therein. They merely transfer the signal between the signal source and the destination point. Accordingly, taking Simon in context, there is absolutely no reason that one skilled in the art, when confronted with Simon's relaying system” would look to a completely different, computer/Internet based system, such as Imai or Osaki, to modify Simon's system. Rather, the only motivation to combine aspects of Imai or Osaki with Simon comes from Applicant's own claims and specification. The Examiner is thus using impermissible hindsight, using Applicant's claims as a blueprint, to piece together elements from the prior art where no suggestion or motivation to do so is present. The rejection therefore cannot stand. Accordingly, withdrawal of the rejection of claim 2 is respectfully requested. This reasoning also applies to dependent claims 121, 129, and 138.

With regard to Applicant's independent claim 15, the Examiner asserts that Simon teaches that the method could be extended to use radar, which is a directional antenna (column 5, lines 32-35) and that therefore Simon discloses “a direction antenna” such as specified in Applicant's claim 15. The Examiner acknowledges that Simon does not disclose a directional multibeam antenna that re-transmits the information signal in a plurality of directions, at least one direction being along the pathway, as is recited in Applicant's claim 15. However, the Examiner asserts that “it would have been obvious...to modify the invention of Simon et al. so that it teaches... that the information signal is transmitted in a plurality of directions, at least one direction being along a pathway” because the Examiner “takes Official Notice that such an arrangement has been well known in the art as a means for providing a system that is responsive to current conditions; fault tolerant; secure; and capable of serving several users simultaneously.”

Applicant respectfully disagrees.

As discussed above, Simon simply does not disclose the type of communication system that the Examiner asserts it does. Simon is a relaying system and uses omnidirectional antennas so as to be able to relay the signal to the next aerodyne in the chain, regardless of its position with respect to the current aerodyne. As explained in detail in Applicant's previous responses, Simon does not disclose that the aerodynes are traveling along predetermined vehicular pathways and certainly does not disclose or suggest transmitting the signal along the pathway to the next aerodyne.

Further Applicant disputes the Examiner's taking of Official Notice that using a multibeam antenna in a vehicular communication system to transmit information in a plurality of directions, one of which is along a pathway upon which at least one of the vehicles is located, is obvious. The Examiner appears to cite the Imai reference as support for this notion. As discussed above, Imai is directed to a computer system and controlling of data signal within the computer system when a problem with Internet connectivity occurs. Imai has nothing to do with vehicular communication systems, nor with antennas, multibeam or otherwise. The rejection of Applicant's claim 15 is wholly deficient because Simon does not disclose or suggest all the features recited in Applicant's claim 15, and there is no motivation present in the prior art of record to modify Simon to include "a directional multibeam antenna that re-transmits the information signal in a plurality of directions, at least one of the plurality of directions being along the pathway." Imai cannot cure the deficiencies of the Simon-based rejection because Imai does not disclose or suggest such a multibeam antenna and there is absolutely no motivation to combine Imai with Simon as they are in completely different fields. Accordingly, withdrawal of the rejection of Applicant's independent claim 15 is respectfully requested. This reasoning also applies to dependent claims 42, 51, 93, 111, 128, 133, 134, 140 and 146.

In addition, Applicant's independent claim 15 recites "an additional directional antenna coupled to the additional transmitter/receiver unit that re-transmits the information signal along the pathway." Similar (although not identical) limitations regarding a directional antenna are also present in Applicant's dependent claims 41, 50, 58, 84, 86, 92 and 110. Therefore, the following discussion which focuses on the directional antenna limitation (regardless of which element the antenna is coupled to) is also relevant to dependent claims 41, 50, 58, 84, 86, 92 and 110. The Examiner states that Simon discloses that the method could be extended to use radar,

which is a directional antenna (column 5, lines 32-35). The Examiner further states that all antennae are inherently directional antennae. Applicant respectfully disagrees with these statements. The Examiner also acknowledges that: "Simon et al. fails to teach the step of re-transmitting the information signal along the first predetermined pathway using a direction antenna coupled to the first transceiver. Examiner take Official Notice that such an arrangement has been well known in the art. It would have been obvious to one of ordinary skill in the art to modify the invention of Simon et al. so that it includes the step of re-transmitting the information signal along the first predetermined pathway using a directional antenna coupled to the first transceiver because Examiner takes Official Notice that such an arrangement has been well known in the art as a means for enabling the transmission path of the information signal to be determined." Applicant respectfully disagrees with these statements and requests that the Examiner either withdraw this rejection or provide a prior art reference to support the statements.

In particular, Applicants do not agree with assertion in the Office Action that radar uses a directional antenna, and request that the Examiner provide a prior art reference disclosing that the type of radar discussed in Simon uses a directional antenna (see MPEP § 2144.03). However, even if the radar of Simon does use a directional antenna, Simon does not disclose that the transceivers located on the aerodynes are equipped with directional antennas. Simon discloses only that the transceivers may transfer data to an interrogating radar, not that the transceivers do so using directional antennas. Furthermore, the radar interrogation system of Simon is disclosed to be additional to the relay transmission method, not forming part of the chain of transmission between aerodynes. Simon does not disclose or suggest that the transceivers use directional antennas to transmit the signal from one relay (aerodyne) to another. In addition, Applicant disputes the assertion that "all antennas are directional antennas." With respect to the assertion that "all antennas are directional antennas," as explained in Applicant's previous response, this is not true. Rather, the term "directional antenna" is a term of art, understood by those of skill in the art to mean an antenna that "focuses signals so that they come and go in a particular pattern, with a particularly strong signal in one direction." Therefore, the term "directional antenna" has a specific meaning and does not apply to all antennas. The Examiner has not identified any teaching in the prior art of record to support the assertion that it would have been obvious to modify Simon to use directional antennas as recited in Applicant's claims. Accordingly, withdrawal of the rejection of claims 15, 41, 50, 58, 84, 86, 92 and 110 is

respectfully requested.

With regard to Applicant's independent claims 30 and 68, the Examiner acknowledges that Simon fails to disclose or suggest that "the information signal includes a first portion of information intended for the passenger vehicle and a second portion of information intended for the second passenger vehicle" and wherein the step of retransmitting the information signal with the first transceiver unit does not include retransmitting the first portion of information," as is recited in Applicant's claim 30, or "wherein the information signal retransmitted from the first passenger vehicle does not include the first portion of information," as is recited in Applicant's claim 68. However, the Examiner takes Official Notice that this feature "is common practice" and, in support of so taking Official Notice, cites to the abstract of Imai. Further, the Examiner states that it would have been obvious to modify Simon to include this feature. Applicant respectfully disputes the Examiner's taking of Official Notice in this instance and also disagrees with the Examiner's assertion that it would have been obvious to modify Simon to disclose an information signal that includes a first portion of information intended for the passenger vehicle and a second portion of information intended for the second passenger vehicle and wherein the step of retransmitting the information signal with the first transceiver unit does not include retransmitting the first portion of information (or wherein the information signal retransmitted from the first passenger vehicle does not include the first portion of information).

As discussed above, Simon discloses a pure relaying system in which the aerodynes simply transfer the information signal from one to another so as to pass the signal between a source and a destination. As such, no portion of the information signal is intended for any of the aerodynes, which do not have any access to the signals at all. There is no motivation to modify Simon such that a portion of the information signal is not retransmitted from one of the aerodynes as this would be contrary to the purpose of Simon's system – Simon does not contemplate the aerodynes accessing the signal themselves, but only passing the entire signal on toward the destination. Thus, properly considered, Simon in fact teaches away from the proposed modification. In addition, as discussed above, Imai is directed to the internal workings of a computer system. Imai has nothing to do with a vehicular communication system and certainly does not disclose or suggest an information signal that "includes a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle" and "wherein the step of retransmitting the information signal

with the first transceiver unit does not include retransmitting the first portion of information” or wherein “the information signal retransmitted from the first passenger vehicle does not include the first portion of information.” Imai therefore does not support the Examiner’s taking Official Notice that the above-mentioned feature is “common practice” and cannot be used to provide any suggestion or motivation to modify Simon. Thus, the rejection of Applicant’s independent claims 30 and 68 is improper for lack of adequate motivation to make the suggested modification. Accordingly, withdrawal of the rejection of claims 30 and 68 is respectfully requested. This reasoning also applies to dependent claims 56, 61, 87, 97, and 103.

With regard to Applicant’s independent claims 90 and 98, the Examiner makes two inconsistent assertions. First, the Examiner asserts, with respect to Simon, that the information is inherently accessible to passengers on each passenger vehicle because each passenger vehicle comprises a transceiver. Second, the Examiner acknowledges that Simon does not disclose “providing the information for access by a passenger” associated with either the first or second passenger vehicles, as is claimed in Applicant’s claim 90, or “a [first or second] passenger interface” that “receives the information...and presents the information for access by [the] passenger,” as is claimed in Applicant’s independent claim 98. Following the second statement, the Examiner then asserts that it “would have been obvious to one of ordinary skill in the art to modify the invention of Simon et al. so that it teaches...that the first passenger vehicle is coupled to the first transceiver unit, which receives the information signal from the first transceiver unit, and a second interface coupled to the receiver, which presents the information signal for access by a passenger because Examiner takes Official Notice that such an arrangement has been well known in the art as a means for providing a system that is responsive to current conditions; fault tolerant; secure; and capable of serving several users simultaneously.” Applicant respectfully disagrees with all of these assertions and traverses the rejection as follows.

As explained above, in Simon’s system, the only units that Simon teaches have any access to the information signal are the source that transmits it and the destination to which it is directed. There is absolutely no teaching or suggestion in Simon of allowing the aerodynes to access or use the signal in any manner whatsoever. There is not even any suggestion in Simon that the transceivers used to relay the signal are even connected in any way to any of the aerodynes’ other systems (e.g., their communication circuitry). Therefore, contrary to the Examiner’s assertion, the information is not inherently accessible to passengers on each

passenger vehicle simply because each passenger vehicle comprises a transceiver. For a reference to inherently disclose an otherwise missing element, “the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be recognized by persons of ordinary skill” “Inherency, however, may not be established by probabilities or possibilities.” (MPEP §2163.07(a)). There is no evidence whatsoever that establishes that the aerodynes in Simon “necessarily” have access to the information signal and can present the information in the signal for access by a passenger associated with the aerodyne. Rather, as discussed above, Simon suggests that any passengers of the aerodynes do not have access to the relayed signals as the signals are not intended to be transmitted to or accessed by the aerodynes, but merely to be relayed onward toward an ultimate destination. Therefore, Simon cannot inherently disclose “providing the information for access by a passenger” associated with either the first or second passenger vehicles, as is claimed in Applicant’s claim 90, or “a [first or second] passenger interface” that “receives the information...and presents the information for access by [the] passenger,” as is claimed in Applicant’s independent claim 98.

With regard to the Examiner’s second statement, Applicant respectfully disagrees that the features recited in Applicant’s claims 90 and 98 are obvious modifications of Simon. The Examiner points to the Breed reference in support of his assertion that providing the information signal for access by a passenger associated with the passenger vehicle is known in the art. However, the Examiner fails to point to any teaching or suggestion in the art of record that would lead of skill in the art to apply the teachings of Breed to Simon. Rather, the Examiner is impermissibly using Applicant’s claim as a blueprint for selecting and piecing together elements from the prior art. As discussed above, Simon contains absolutely no disclosure or suggestion that the aerodynes do or could have access to the information signals they relay. Rather, Simon suggests the opposite. The aerodynes serve a secondary purpose as mere relay stations that conveniently allow a signal to be passed from a source to a destination with the creation and installation of a new communications infrastructure. Nowhere in the entire disclosure of Simon is there any suggestion at all that the aerodynes could do more than simply pass the signal on toward the intended destination. There is thus no motivation to apply elements from Breed to Simon’s relaying system.

In making a § 103 rejection, the prior art references must be considered in their entirety

and in context. It is not proper to lift isolated portions from each reference and piece these portions together to arrive at Applicant's claimed invention. Rather, each reference must be considered as a whole and motivation to apply the teachings of one reference to another must be present in the art considered as a whole. (MPEP § 2141.02). Such motivation is lacking in this case, because Simon does not disclose an "information network" system, but rather only a simple relaying system. The Examiner's proposed modification of Simon based on the disclosure of Breed is improper because it is based on a mischaracterization of Simon. Accordingly, the rejection cannot stand. Therefore, withdrawal of the rejection of claims 90 and 98 is respectfully requested. This reasoning also applies to dependent claims 49, 54, 55, 59, and 85.

Each of dependent claims 4-7, 10, 13, 14, 16, 19-22, 24, 29, 31, 35, 40-47, 49-61, 63-67, 69-86, 88, 89, 91-97, and 99-150 depend from one of independent claims 1, 2, 15, 30, 68, 90 and 98 discussed above and is therefore allowable for at least the same reasons as discussed for its respective base claim. Applicant does not agree with the Examiner's interpretation and/or characterization of any of the dependent claims, nor with the Examiner's taking of Official Notice that the features recited in any of the dependent claims, in combination with the features recited in the appropriate base claim, are "well known" or "commonly practiced." Applicant respectfully disputes the Examiner's taking of Official Notice in each instance, unless the Examiner can provide a prior art reference that discloses the specific feature and the Examiner points to the particular teaching in the prior art reference that would be alleged to support the Examiner's taking of Official Notice. Applicant also specifically disputes the Examiner's assertion that any of these claims are rendered obvious in light of the prior art of record. For the sake of brevity, not every dependent claim is discussed individually although Applicant has noted where the above arguments apply to certain dependent claims, and also addresses below the Examiner's statements with respect to certain individual dependent claims. Applicant believes that each dependent claim is patentable over the art of record and respectfully requests that the rejection of dependent claims 4-7, 10, 13, 14, 16, 19-22, 24, 29, 31, 35, 40-47, 49-61, 63-67, 69-86, 88, 89, 91-97, and 99-150 be withdrawn.

With regard to claim 16, the Examiner states: "the transceiver onboard each aerodyne in Simon is inherently located in an area where there is an already existing communication channel because the transceiver communicates. According to the most general definition of channel, a channel is simply a path along which a signal can be sent. If no such channel existed in the area

of the transceiver onboard an aerodyne, the aerodyne would therefore be unable to communicate.” Applicant respectfully disagrees. The operative words in claim 16 are “already existing” meaning another communication channel, separate and distinct from the communication between and among the passenger vehicles in the chain specified in claim 15 from which claim 16 depends. As discussed above, to establish inherency of an element in a reference, “the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be recognized by persons of ordinary skill” “Inherency, however, may not be established by probabilities or possibilities.” (MPEP §2163.07(a)). Simon does make any mention of an already existing communication channel, separate from communication between the aerodynes, and there is no reason to believe that one is necessarily present. Therefore, contrary to the Examiner’s assertion, Simon does not render unpatentable Applicant’s dependent claim 16.

Several of Applicant’s dependent claims contain references to the passenger vehicles being located on same or different “pathways,” and transmitting the information signal along a pathway. In the Office Action, the Examiner makes numerous assertions along the lines that it would have been obvious to modify Simon such that the vehicles are located on the pathways in the arrangements recited in Applicant’s claims, and that it further would have been obvious to modify Simon to transmit the information signal along the pathway. The Examiner purports to take Official Notice that all these vehicle arrangements on the pathway(s) and transmitting the signal along the pathway are well known in the art. Applicant respectfully disputes these assertions. First, the Examiner has not identified any prior art reference that discloses or suggests the specific vehicular arrangements claimed in Applicant’s claims to support the statement that they are well known in the art. To maintain these rejections, Applicant respectfully requests that the Examiner produce such a reference. Second, in stating that it would be obvious to modify Simon, the Examiner has failed to point to any motivation or suggestion present in the art of record that would lead one skilled in the art to make such a modification to Simon, particularly in view of the fact that Simon is totally silent with respect to pathways and provides no suggestion to transmit the information signal along a pathway.

Applicant’s dependent claims 13, 29, 67, 79-81, 94, 107, 108, 123-127, 131, 132, 135-137, 141, 142, 144 and 145 all contain limitations regarding a pathway station or pathway control station that monitors the vehicles and information signals along the pathway and, in some claims,

sends information to and receives information from the vehicles. In the Office Action, the Examiner makes two inconsistent statements with respect to pathway stations. First, specifically with regard to claim 29, the Examiner states: “each aerodyne in Simon et al. is inherently both a pathway station and a pathway control station because each aerodyne monitors the passenger vehicles (other aerodynes) along a pathway because aerodynes can link up with each other momentarily to pass information in the form of data packets between each other when necessary (column 1, line 64 to column 5, line 5); each aerodyne is inherently coupled to itself; each aerodyne is inherently coupled to an existing packet-based data network because it forwards received data packets to other aerodynes or to the destination (column 1, lines 50-55; column 64 to column 2, line 5); and each aerodyne inherently controls communication between itself and the existing packet-based data network because each aerodyne is part of the existing packet-based data network (column 1, lines 50-55; column 64 to column 2, line 5).” Applicant respectfully disagrees with these assertions. The Examiner is reading far more into Simon than Simon in fact discloses. As discussed above, a reference can only inherently disclose missing descriptive matter when the missing descriptive matter is necessarily present in the thing described in the reference, and would be recognized by persons of ordinary skill.” There is absolutely nothing in Simon that would suggest that an aerodyne is necessarily also a “pathway station.” To the contrary, Simon does not disclose or suggest that the aerodynes do any “monitoring” of one another at all. The Examiner is impermissibly extending Simon based solely on Applicant’s own claims – this cannot form the basis of a valid § 103 rejection.

Second, the Examiner acknowledges in the Office Action that Simon fails to disclose monitoring the passenger vehicles and information signals along the pathway with a pathway station. However, the Examiner “takes Official Notice that such an arrangement has been well known in the art” and states that it “would have been obvious to one of ordinary skill in the art to modify the invention of Simon et al. so that it includes the step of monitoring the passenger vehicles and information signals along the pathway with a pathway station because Examiner takes Official Notice that such an arrangement has been a well known means for enabling the system to provide centralized control over the passenger vehicles. Applicant respectfully disagrees with these assertions. First, Applicant does not agree that the features recited in Applicant’s claims, including “monitoring the passenger vehicles and information signals along the pathway with a pathway station,” are “well known.” Therefore, to maintain these rejections,

the Examiner is requested to provide a prior art reference disclosing the specific limitation and to point out where in the reference the relevant teaching is located. Absent such a showing, the rejections should be withdrawn. Further, Applicant disagrees that it would have been obvious to modify Simon to include any of the features recited in Applicant's claims. The Examiner simply states that "it would have been obvious" to modify Simon to achieve the result recited in Applicant's claim, and/or to "provide centralized control." However, the Examiner has not identified any suggestion present in the prior art of record that would lead on of ordinary skill in the art to make the modification. Simon alone contains no such suggestion or motivation because Simon does not disclose a "network" type system. In Simon's invention, each aerodyne simply relays the signal to another within its range. There is no need or desire for "centralized control" articulated in Simon. It is well established that to maintain a § 103 rejection, a clear teaching or suggestion to make the proposed modification must be identified in the prior art of record. Such teaching or suggestion is lacking in this case, and the rejection therefore must be withdrawn.

With regard to claims 63-65, 76-78, and 118-120, the Examiner acknowledges that Simon fails to disclose that the information includes weather information, or traffic information, or information concerning the location or heading of the passenger vehicles. However, the Examiner "takes Official Notice that such an arrangement has been well known in the art," and states that it "would have been obvious to one of ordinary skill in the art to modify the invention of Simon et al. so that the information includes weather information, or traffic information, or information concerning the location or heading of the passenger vehicles because Examiner takes Official Notice that such an arrangement has been well known in the art as a means for enabling users of the invention to benefit from such useful information." This rejection is based on a mischaracterization of Simon. As explained above, Simon discloses a pure relaying system with no suggestion that the aerodynes can access (or are even aware of) the signals they relay. Therefore, there is no reason to read into Simon any particular information contained in the information signal. In Simon's invention, the contents of the information signal is totally irrelevant, and there is no suggestion or motivation to require the signal to contain any particular information. The Examiner's proposed modification of Simon is based solely on Applicant's own claims because the Examiner identifies no other teaching or suggestion in the prior art to make this modification. Therefore, this rejection cannot stand.

As stated above, each of the dependent claims, whether addressed individually herein or not, is patentable for at least the same reasons as discussed for its respective base claim.

Accordingly, withdrawal of the rejection of claims 4-7, 10, 13, 14, 16, 19-22, 24, 29, 31, 35, 40-47, 49-61, 63-67, 69-86, 88, 89, 91-97, and 99-150 is respectfully requested.

2. Wilson

Claim 1 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al. (U.S. Patent No. 6,141,533). Applicants respectfully traverse this rejection. In the Office Action, the Examiner asserts that Wilson discloses a method of providing information to [a] passenger vehicle (Subscriber Unit 202 in Fig. 2)...from an information source (column 1, line 47 to column 2, line 8), wherein the method comprises transmitting an information signal containing the information with a transmitter located at the information source (Fixed Infrastructure 101 in Fig. 2); receiving the information with a first transmitter/receiver unit located on a passenger vehicle (mobile repeater); and re-transmitting the signal with the first transmitter/receiver unit to a receiver located on the at least one passenger vehicle located on the pathway (column 1, line 47 to column 2, line 8). The Examiner acknowledges that Wilson fails to disclose altering one of a direction of travel and velocity of the second passenger vehicle in response to information received by the receiver. However, the Examiner states that he “takes Official Notice that it has been common practice in the art to alter one of a direction of travel and velocity of the second passenger vehicle in response to information received by the receiver. The Examiner further states that it would have been obvious to modify Wilson so that it discloses the altering of one of a direction of travel and velocity of the passenger vehicle in response to information received by the receiver because the Examiner takes Official Notice that such an arrangement has been well known in the art as a means to enable the system to respond to current conditions. Applicant respectfully disagrees. Wilson discloses a mobile repeater 300 that can be used to extend the coverage of a fixed infrastructure 101 and supply signals, for example, telephone signals, to subscriber units. Wilson discloses that the mobile repeater includes a database that operates to process registration messages from a subscriber unit, such registration messages indicating the presence of the subscriber unit within the coverage area of the mobile repeater and the subscriber unit’s readiness to accept service from the mobile repeater (col. 7, lines 12-19). Thus, Wilson discloses methods of communication between the mobile repeater, the fixed infrastructure and the subscriber units. Wilson does not mention at

all what the subscriber units may or may not do with the signals they receive from the mobile repeater. Furthermore, the mobile repeater itself acts as a relay, connecting subscriber units, and does not access the information signal itself other than to format it for re-transmission.

In support of his taking Official Notice that it is common practice in the art to alter one of a direction of travel and velocity of the second passenger vehicle in response to information received by the receiver, the Examiner points to the Breed reference. However, the Examiner fails to identify any teaching in the prior art of record that would suggest applying the disclosure of Breed to Wilson. There is no suggestion in Wilson that it would be advantageous or desirable to alter a direction or velocity of any of the mobile repeaters or subscriber units, and there is no suggestion in Breed to apply its disclosure to the type of cellular phone system described in Wilson. To establish a prima facie case of obviousness under 35 U.S.C. § 103, the Examiner must identify a clear teaching or suggestion in the prior art of record that would motivate one of ordinary skill in the art to combine the references. Further, the Examiner must explain how the proposed combination discloses each and every limitation recited in Applicant's claim(s). The Examiner has failed to provide a prima facie rejection in this case because the Examiner points to no suggestion to combine the teachings of Wilson with those of Breed. It is not enough simply that the references are in similar fields or may, in theory, be combined. To sustain a § 103 rejection, clear and specific motivation to make the proposed combination must be present and identified in the art of record. Since this is lacking in this case, the rejection cannot stand. Accordingly, withdrawal of the rejection of claim 1 is respectfully requested.

3. Larsen

Claims 1, 2, 15, 30, and 68 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Larson et al. (U.S. Patent No. 6,473,617). Applicants respectfully traverse this rejection.

As discussed in Applicants' previous responses, Larsen discloses a cellular network comprising a plurality of mobile stations and a plurality of base stations that define cells of non-overlapping zones of coverage (col. 3, lines 34-45). According to Larsen, the mobile stations transmit data messages opportunistically between themselves and other stations in order to relay messages from an originating station to a receiving station and effectively "fill in" gaps in coverage between adjacent cells (col. 4, lines 1-9). The Examiner acknowledges that Larsen fails to disclose a number of features recited in Applicants' claims.

Specifically, with regard to claim 1, the Examiner acknowledges that Larsen fails to teach altering one of a direction of travel and velocity of the second passenger vehicle in response to information received by the receiver. With regard to claim 2, the Examiner acknowledges that Larsen fails to disclose storing data when the second passenger vehicle becomes disconnected from the information network so that the information can be provided when the second passenger vehicle is reconnected to the information network. With regard to claim 15, the Examiner acknowledges that Larsen fails to disclose that the information signal is transmitted in a plurality of directions, at least one direction being along a pathway. With regard to claims 30 and 68, the Examiner acknowledges that Larsen fails to disclose that the information signal includes a first portion of information intended for the passenger vehicle and a second portion of information intended for the second passenger vehicle and that the information signal retransmitted from the first passenger vehicle does not include the first portion of information.

However, the Examiner asserts that it would have been obvious to modify Larsen to incorporate the features of: “altering one of a direction of travel and velocity of the second passenger vehicle in response to information received by the receiver;” “storing data when the second passenger vehicle becomes disconnected from the information network so that the information can be provided when the second passenger vehicle is reconnected to the information network;” “that the information signal is transmitted in a plurality of directions, at least one direction being along a pathway [on which the first and second passenger vehicles are located];” “wherein the information signal includes a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle, and wherein the step of retransmitting the information signal with the first transceiver unit does not include retransmitting the first portion of information” because the Examiner takes Official Notice that these features are well known in the art and that such an arrangement (i.e., Larsen modified to incorporate any of these features) has been well known in the art as a means for designing a system that is responsive to current condition, fault tolerant, secure and capable of serving several users simultaneously. Applicants respectfully disagree. There is absolutely no indication in the prior art of record that a system consisting of a modified version of Larsen’s system that includes any one of the above-recited features from Applicant’s claims is “well known.”

In particular, with regard to claim 1, as discussed above, in support of his taking Official Notice that it is common practice in the art to alter one of a direction of travel and velocity of the second passenger vehicle in response to information received by the receiver, the Examiner points to the Breed reference. However, the Examiner fails to identify any teaching in the prior art of record that would suggest applying the disclosure of Breed to Larsen. Larsen is directed to a cellular phone network. The Examiner has identified no teaching or suggestion in either Breed or Larsen that would suggest applying the teachings of Breed to Larsen's cellular telephone network. As discussed above, to establish a prima facie case of obviousness under 35 U.S.C. § 103, such motivation or suggestion the must be present and identified in the art of record. Since this is lacking in this case, the rejection cannot stand. Accordingly, withdrawal of the rejection of claim 1 is respectfully requested.

With regard to claim 2, in support of his taking of Official Notice that "it is well known in the art to have a method that includes storing data when the second passenger vehicle becomes disconnected from the information network so that the information can be provided when the second passenger vehicle is reconnected to the information network," the Examiner points to the abstract of Osaki and the abstract of Imai. As discussed above, Imai and Osaki are directed to computers and have nothing whatsoever to do with cellular communications networks, such as is disclosed by Larsen.

Specifically, Imai is directed to a computer system for controlling data transfer between a computer and an Internet connection. Imai has absolutely no bearing on or relation to Larsen and is in a completely different field of art. Imai does not discuss at all a cellular communication system such as is disclosed by Larsen. Similarly, Osaki is directed to a method and apparatus for controlling power supply to a computer during a power service interruption. Osaki discloses that upon detection of a power service interruption, the computer power supply communicates with the computer processor to provide notice of the power interruption and to instruct the processor to execute a "save" operation to prevent loss of data during the power interruption. Osaki has absolutely nothing to do with any type of wireless communication network, let alone the specific cellular network disclosed in Larsen. Rather, both Osaki and Imai disclose methods and apparatus internal to a computer system. There is no teaching or suggestion whatsoever in the art of record to apply the disclosures of Imai and Osaki, which are relevant to computers, to a cellular communication system such as Larsen's. Rather, the only motivation to combine aspects

of Imai or Osaki with Larsen comes from Applicant's own claims and specification. The Examiner is thus using impermissible hindsight, using Applicant's claims as a blueprint, to piece together elements from the prior art where no suggestion or motivation to do so is present. The rejection therefore cannot stand. Accordingly, withdrawal of the rejection of claim 2 is respectfully requested.

With regard to claim 15, the Examiner, in support of his taking of Official Notice that an information signal that is "transmitted in a plurality of directions, at least one direction being along a pathway" is "well known," apparently points to the abstract of Imai. As discussed above, Imai is directed to a computer system and controlling of data signal within the computer system when a problem with Internet connectivity occurs. Imai has nothing to do with vehicular communication systems, nor with antennas, multibeam or otherwise, and certainly does not disclose or suggest "a directional multibeam antenna, coupled to the first transmitter/receiver unit, that re-transmits the information signal in a plurality of directions, at least one of the plurality of directions being along the pathway," as is recited in Applicant's claim 15. Therefore, Imai cannot provide any support for the Examiner's assertions regarding the obviousness of Applicant's claim 15 and the rejection cannot stand. Accordingly, withdrawal of the rejection of claim 15 is respectfully requested.

With regard to claims 30 and 68, in support of the Examiner's taking of Official Notice that the feature of the information signal including a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle, wherein the information signal retransmitted with the first transceiver unit does not include the first portion of information" is "well known," the Examiner points to the abstract of Imai. Here again, Imai does not disclose or suggest what the Examiner states it does, and is wholly inadequate as support for the above statement. Rather, as discussed above, Imai is directed to a computer system and controlling of data signal within the computer system when a problem with Internet connectivity occurs. Imai has nothing to do with vehicular communication systems and does not discuss transmitting information signals from one passenger vehicle to another. Certainly, Imai does not disclose or suggest an information signal that includes a first portion intended for for the first passenger vehicle and a second portion of information intended for the second passenger vehicle, wherein the information signal retransmitted with the first transceiver unit does not include the first portion of information. In addition, the Examiner

identifies absolutely no suggestion or motivation in the art of record that would lead someone considering the Larsen reference to even look to Imai, which is in a totally different field or art. Certainly, the Examiner identifies no objective suggestion or motivation present in the art of record that would lead on skilled in the art to modify any part of Larsen based on the disclosure of Imai. Rather, the Examiner is simply piecing together unrelated portions of prior art to arrive at Applicant's claims, which is impermissible and not a valid § 103 rejection. Accordingly, withdrawal of the rejections of claims 30 and 68 is respectfully requested.

4. Steele

Claims 1-8, 10, 13-22, 24, 29-31, 40-47, 50, 52, 57, 58, and 60 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Steele. Applicants respectfully traverse this rejection.

As discussed in Applicants' previous response, Steele discloses a radio communication network comprising a plurality of relatively closely spaced-apart mobile stations each comprising a transmitter and a receiver and being arranged to act as controlled repeaters to relay incoming traffic signals to nearby mobile stations. With regard to claims 1-8, 10, 13, 15-17, 29-31, 35, 40-45, 50, 57, and 58, the Examiner asserts that Steele discloses a method and system for allowing a mobile station (hidden mobile station) and a fixed base station (information source) which are out of range of direct communication, to communicate by using other mobile stations (DMS) as repeaters. The Examiner states that "[t]he location of each mobile station is estimated," and that the "process can involve several mobile stations, any number of which may be hidden." The Examiner further asserts that "[a] pathway station (SC) monitors the mobile stations," and that "[t]he antennas used in Steele are inherently directional antennas because all antennas, whether unidirectional, omni-directional, or multidirectional, are directional." The Examiner acknowledges that Steele fails to teach that the mobile stations are on passenger vehicles. The Examiner also states that Steele discloses that "all of the mobile stations can have various velocities (so they can travel in any direction at any speed) and accelerations and can be fixed (Fig. 7)." The Examiner purports to take "Official Notice that such an arrangement has been well known in the art," and states that it "would have been obvious to one of ordinary skill in the art to modify the invention of Steele so that the mobile stations are on passenger vehicles because such an arrangement would enable the users of the mobile stations to perform tasks

other than communication, such as traveling from one point to another.”

With regard to the statement in the Office Action that “the antennas used in Steele are inherently directional antennas because all antennas, whether omni-directional, unidirectional or multi-directional, are directional,” Applicant respectfully disagrees. As stated in Applicant’s previous response(s), the term “directional antenna” is a term of art, understood by those of skill in the art to mean an antenna that “focuses signals so that they come and go in a particular pattern, with a particularly strong signal in one direction.” Omni-directional antennas are understood in the art not to be directional antennas because they define a beam pattern that is substantially uniform in all directions in the dominant plane of the antenna, not particularly strong in one direction.

Applicant agrees that Steele discloses that the mobile stations can have various velocities, but disagree with the Examiner’s characterization that this means “they can travel in any direction at any speed.” Rather, Applicant wishes to clarify that “various velocities,” means “some directions at some variety of speeds.” In addition, Applicant is unclear as to the meaning of the Examiner’s statement that the “Examiner takes Official Notice that such an arrangement has been well known in the art.” To the extent that the Examiner means that the system disclosed in Steele is well known, Applicant agrees because Steele is public knowledge. To the extent that the Examiner’s statement refers to something more than the system and method explicitly disclosed in Steele, Applicant respectfully traverses this statement and request that the Examiner clarify exactly what he regards as being “well known.”

With regard to Applicant’s independent claim 1, the Examiner acknowledges that Steele fails to disclose “altering one of a direction of travel and velocity of the second passenger vehicle in response to information received by the receiver.” The Examiner states that it “would have been obvious to one of ordinary skill in the art to modify the invention of Steele et al. so that it teaches altering one of a direction of travel and velocity of the second passenger vehicle in response to information received by the receiver” because “the Examiner takes Official Notice that such an arrangement has been well known in the art as a system that is responsive to current conditions; fault tolerant; secure; and capable of serving several users simultaneously.” Applicant respectfully disagrees and traverses this rejection.

The Examiner has provided no support for his assertion that a modified version of Steele is “well known” and has identified absolutely no disclosure, suggestion or motivation in the art

of record that would lead on of ordinary skill in the art to modify Steele as proposed in the Office Action. Therefore, this § 103 rejection is deficient and cannot stand.

In particular, although the Examiner points to Breed to supply the feature of “altering one of a direction of travel and velocity of the second passenger vehicle in response to information received by the receiver,” the Examiner does not explain how the disclosure of Breed can properly be combined with Steele, as is required for a prima facie § 103 rejection. Accordingly, since the rejection is wholly deficient, withdrawal of the rejection of claim 1 is respectfully requested.

With regard to Applicant’s independent claim 2, the Examiner acknowledges that Steele fails to disclose “storing data when the second passenger vehicle becomes disconnected from the information network so that the information can be provided when the second passenger vehicle is reconnected to the information network,” but states that it “would have been obvious to modify Steele to disclose “storing data when the second passenger vehicle becomes disconnected from the information network so that the information can be provided when the second passenger vehicle is reconnected to the information network,” because the “Examiner takes Official Notice that such an arrangement has been well known in the art as a system that is responsive to current conditions; fault tolerant; secure; and capable of serving several users simultaneously.” Applicant respectfully disagrees and traverses this rejection.

Again, the Examiner has provided no support for his assertion that a modified version of Steele is “well known” and has identified absolutely no disclosure, suggestion or motivation in the art of record that would lead on of ordinary skill in the art to modify Steele as proposed in the Office Action. Therefore, this § 103 rejection is deficient and cannot stand.

Also, as discussed above, the Examiner’s reliance on Imai and Osaki to support his assertion that “storing data when the second passenger vehicle becomes disconnected from the information network so that the information can be provided when the second passenger vehicle is reconnected to the information network,” is well known, is misplaced because Imai and Osaki are directed to computers and do not disclose or suggest what the Examiner asserts that they do. Further, the Examiner has failed to identify any suggestion or motivation present in the prior art to combine Imai and/or Osaki with Steele, and thus the rejection is deficient in this requirement also. Accordingly, withdrawal of the rejection of claim 2 is respectfully requested.

With regard to Applicant’s independent claim 15, the Examiner acknowledges that Steele

fails to disclose that “the information signal is transmitted in a plurality of directions, at least one direction being along a pathway.” However, the Examiner asserts that it “would have been obvious to one of ordinary skill in the art to modify the invention of Steele” so that it discloses that “the information signal is transmitted in a plurality of directions, at least one direction being along a pathway,” because the “Examiner takes Official Notice that such an arrangement has been well known in the art as a system that is responsive to current conditions; fault tolerant; secure; and capable of serving several users simultaneously.” Applicant respectfully disagrees and traverses this rejection.

Again, the Examiner has provided no support for his assertion that a modified version of Steele is “well known” and has identified absolutely no disclosure, suggestion or motivation in the art of record that would lead on of ordinary skill in the art to modify Steele as proposed in the Office Action. Therefore, this § 103 rejection is deficient and cannot stand.

Further, as discussed above, the Examiner, in support of his taking of Official Notice that an information signal that is “transmitted in a plurality of directions, at least one direction being along a pathway” is “well known,” apparently points to the abstract of Imai. Imai is directed to a computer system and controlling of data signal within the computer system when a problem with Internet connectivity occurs. Imai has nothing to do with vehicular communication systems, nor with antennas, multibeam or otherwise, and certainly does not disclose or suggest “a directional multibeam antenna, coupled to the first transmitter/receiver unit, that re-transmits the information signal in a plurality of directions, at least one of the plurality of directions being along the pathway,” as is recited in Applicant’s claim 15. Therefore, Imai cannot provide any support for the Examiner’s assertions regarding the obviousness of Applicant’s claim 15. In addition, the Examiner has not identified any motivation or suggestion to combine Imai and Steele, and thus has not made a prima facie case of obviousness under § 103. Accordingly, withdrawal of the rejection of claim 15 is respectfully requested.

With regard to Applicant’s independent claim 30, the Examiner acknowledges that Steele fails to disclose “wherein the information signal includes a first portion of information intended for the passenger vehicle and a second portion of information intended for the second passenger vehicle and wherein the step of retransmitting the information signal with the first transceiver unit does not include retransmitting the first portion of information.” The Examiner asserts that it “would have been obvious to one of ordinary skill in the art to modify the invention of Steele

et al. so that it teaches...wherein the information signal includes a first portion of information intended for the passenger vehicle and a second portion of information intended for the second passenger vehicle and wherein the step of retransmitting the information signal with the first transceiver unit does not include retransmitting the first portion of information...because Examiner takes Official Notice that such an arrangement has been well known in the art as a system that is responsive to current conditions; fault tolerant; secure; and capable of serving several users simultaneously.” Applicant respectfully disagrees and traverses this rejection.

In support of the Examiner’s taking of Official Notice that the feature of the information signal including a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle, wherein the step of retransmitting the information signal with the first transceiver unit does not include the retransmitting the first portion of information” is “well known,” the Examiner points to the abstract of Imai. Here again, Imai does not disclose or suggest what the Examiner states it does, and is wholly inadequate as support for the above statement. Rather, as discussed above, Imai is directed to a computer system and controlling of data signal within the computer system when a problem with Internet connectivity occurs. Imai has nothing to do with vehicular communication systems and does not discuss transmitting information signals from one passenger vehicle to another. Certainly, Imai does not disclose or suggest an information signal that includes a first portion intended for for the first passenger vehicle and a second portion of information intended for the second passenger vehicle, wherein the information signal retransmitted with the first transceiver unit does not include the first portion of information. In addition, the Examiner identifies absolutely no suggestion or motivation in the art of record that would lead someone considering the Steele reference to even look to Imai, which is in a totally different field or art. Certainly, the Examiner identifies no objective suggestion or motivation present in the art of record that would lead on skilled in the art to modify any part of Steele based on the disclosure of Imai. Rather, the Examiner is simply piecing together unrelated portions of prior art to arrive at Applicant’s claims, which is impermissible and not a valid § 103 rejection. Accordingly, withdrawal of the rejections of claim 30 is respectfully requested.

Dependent claims 3, 8 and 17 hve been canceled, therefore, the rejection is moot with respect to claims 3, 8 and 17. Each of dependent claims 4-7, 10, 13, 14, 16, 18-22, 24, 29, 31, 40-47, 50, 52, 57, 58, and 60 depends, either directly or indirectly, from one of independent

claims 1, 2, 15, 30 and 60 discussed above and is therefore allowable for at least the same reasons as discussed for its respective base claim. Accordingly, for the sake of brevity and conciseness, Applicant does not at this time argue the patentability of each dependent claim individually. However, Applicant does not agree that the Examiner's characterization of any of the dependent claims is proper. Specifically, Applicant disputes the Examiner's taking of Official Notice that the features recited in Applicant's claims are "well known" and requests that the Examiner either provide documentary proof or withdraw the statements. Applicant also reserves the right to argue the patentability of each dependent claim individually in the future, if deemed necessary.

Withdrawal of the rejection of dependent claims 4-7, 10, 13, 14, 16, 18-22, 24, 29, 31, 40-47, 50, 52, 57, 58, and 60 is respectfully requested for the reasons stated above.

5. Simon and Rootsey

Claims 18 and 28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Simon in view of Rootsey (U.S. Patent No. 5,995,804). Applicant respectfully traverses this rejection.

Claims 18 and 28 depend from independent claim 15 and are therefore allowable for at least the same reasons as discussed for claim 15. Therefore, Applicants do not set forth specific arguments relating to the patentability of claims 18 and 28 individually, but reserve the right to do so in the future. However, Applicants do not agree that the suggested combination of Simon and Rootsey is proper, nor that the basis for rejection of claims 18 and 28 is proper. In particular, Applicants do not agree that the Examiner's reasoning for asserting the obviousness of claims 18 and 28 is sound. Withdrawal of the rejection of claims 18 and 28 is respectfully requested.

6. Simon and Drummer

Claim 27 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Simon in view of Drummer (U.S. Patent No. 5,880,693). Applicants respectfully traverse this rejection.

Claim 27 depends from claim 15 and is therefore allowable for at least the same reasons as claim 15. Therefore Applicants do not set forth specific arguments relating to the patentability of claim 27 individually, but reserve the right to do so in the future. However, Applicants do not

agree that the suggested combination of Simon and Drummer is proper, nor that the basis for rejection of claim 27 is proper. In particular, Applicants do not agree that the Examiner's reasoning for asserting the obviousness of claims 27 is sound. Withdrawal of the rejection of claim 27 is respectfully requested.

8. Robert

Claims 1-3, 15, 30 and 68 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Robert (U.S. Patent No. 6,104,712). Applicants respectfully traverse this rejection.

The Examiner acknowledges that Robert fails to disclose various features recited in Applicant's claims. Specifically, Robert fails to disclose: altering one of a direction of travel and velocity of the second passenger vehicle in response to information received by the receiver (claim 1); storing data when the second passenger vehicle becomes disconnected from the information network so that the information can be provided when the second passenger vehicle is reconnected to the information network (claim 2); that the information signal is transmitted in a plurality of directions, at least one direction being along a pathway (claim 15); wherein the information signal includes a first portion of information intended for the passenger vehicle and a second portion of information intended for the second passenger vehicle and wherein the step of retransmitting the information signal with the first transceiver unit does not include retransmitting the first portion of information (claim 30); wherein the information signal includes a first portion of information intended for the first passenger vehicle and a second portion of information intended for the second passenger vehicle and wherein the information signal retransmitted from the first passenger vehicle does not include the first portion of information (claim 68).

The Examiner asserts that it would have been obvious to one of ordinary skill in the art to modify the invention of Robert so that it teaches each of the above-mentioned features, because "such a system would be responsive to current conditions; fault tolerant; secure; and capable of service several users simultaneously." The Examiner also acknowledges that Robert fails to teach that the messages that are received and used by a passenger are also forwarded, but states that it "would have been obvious to one of ordinary skill in the art to modify the invention of

Robert et al. so that the messages that are received and used by a passenger are also forwarded because such an arrangement would enable multiple parties to receive the message.” Applicant respectfully disagrees with these assertions.

Specifically, as explained above, simply stating that “it would have been obvious” to modify Robert, without identifying in the prior art where there is motivation and suggestion to make any such modification, is not sufficient to establish a prima facie case of obviousness. Rather, the law is clear that in making a rejection under § 103, the Examiner must identify where in the prior art each and every limitation recited in Applicant’s claims is present, and must identify a teaching or suggestion that would lead one of ordinary skill in the art to combine and/or modify the prior art references so that the combination, as a single entity, contains each and every limitation from Applicant’s claims. In this case, the Examiner has not identified prior art references that disclose the elements of Applicant’s claims not disclosed in Robert. To the extent that the Examiner impliedly is relying on references such as Imai and Osaki applied above, these references fail to cure the deficiencies of Robert because they do not disclose or suggest what the Examiner has alleged they do (see above). Further, even considering these references, the Examiner has provided no indication as to where there may be found any motivation to modify Robert based on the disclosures of these (or other) references. Rather, the Examiner is using impermissible hindsight, based solely on Applicant’s own claims, to suggest that modifying Robert “would have been obvious” when such suggestion is totally lacking in the prior art of record. Accordingly, the rejection is deficient.

Claim 3 has been canceled and thus the rejection is moot with respect to claim 3. For the reasons discussed above, withdrawal of claims 1, 2, 15, 30 and 68 is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, reconsideration is respectfully requested. This application should now be in condition for allowance; a notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50/2762.

Respectfully submitted,
Michael Barrett, et al., Applicants

By: 

John N. Anastasi, Reg. No. 37,765
LOWRIE, LANDO & ANASTASI, LLP
One Main Street
Cambridge, Massachusetts 02142
United States of America
Telephone: 617-395-7000
Facsimile: 617-395-7070

Docket No.: A0602-7002

Date: June 20, 2005